ABSTRACT

A glass-ceramic composite material is described having a matrix that is at least from place to place of a glass type, and having a ceramic filler as well as a ceramic foil, a ceramic laminate or microhybrid using this composite material, the matrix containing lithium, silicon, aluminum and oxygen, and has at least from place to place a crystalline phase. In addition, a method is described for producing it, a glass having crystalline regions being melted from a starting mixture having 20 wt. % to 68 wt. % SiO₂, 10 wt. % to 25 wt. % Al₂O₃, 5 wt. % to 20 wt. % Li₂O, 0 wt. % to 35 wt. % B₂O₃, 0 wt. % to 10 % P₂O₅, 0 wt. % to 10 wt. % Sb₂O₃ and 0 wt. % to 3 wt. % ZrO₂ and converted into a glass powder, a ceramic filler, particularly powdered aluminum nitride, being then mixed in with the glass powder, and this powder mixture is finally sintered, especially after the addition of further components.

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